

REMARKS

The Examiner rejected claims 1-6 under 35 U.S.C. 103(a) citing US Patent No. 5,505,763 System And Method For Controlling Air Flow Through A Powder Coating Booth by M. A. Reighard, et al. or US Patent No. 5,554,416 Automated Air Filtration And Drying System For Waterborne Paint And Industrial Coatings by F. G. Scheufler, et al. Applicants respectfully disagree.

First of all, Scheufler, et al. does not disclose the concept of determining the initial pressure drop across the filter. At col. 6, lines 64 and 65, Scheufler, et al. only talks about pressure sensing mounting. In fact nowhere in the specification does Scheufler, et al. discuss the concept of:

“—determining the initial pressure drop across a filter prior to use of the spray booth;

determining the maximum allowable pressure drop for the filter prior to the requirement that spraying activities must be terminated by adding the initial pressure drop of the filter to the maximum allowable increase in pressure drop across the filter before the of spraying activities must be terminated —;”

Furthermore, in col. 7, lines 7-14, Scheufler, et al. only discusses the concept of increasing airflow upon filter load increasing. No warning signal is provided. Applicants on the other hand provide:

“—providing a warning when a first portion of the maximum allowable pressure drop is reached—”

Additionally, the Scheufler, et al uses a warning light to indicate that system is necessary. See col. 11, lines 26-32. Applicants on the other hand provide:

“—preventing the use of the spray gun when a second portion, greater than the first portion, of the maximum allowable pressure drop is reached—”. Thus there is no teaching of the critical steps as outlined above as Applicants claim 6 sets forth.

The patent to Reighard, et al., is primarily concerned with maintaining proper airflow in a powder coating booth. When the filters become clogged with powder, a pressure surge is applied to “knock” the powder off the filters. Referring to Figure 1 of Reighard, et al., the nozzles 66A and 22B are located over the filters 58 and are used to provide the pulsing air. This powder is then collected for reuse. Thus the filters are not replaced, but only cleaned. Applicants believe that the Examiner has misinterpreted Figure 6. Figure 6 is a graph of the total pressure verses fan speed. The Q_1 , O_2 and O_3 airflow curves are linear approximations of non-linear curves. The knee pressure points are just a change point between the two linear portions of the plot. They are not initial starting points for a new filter.

The whole purpose of the Reighard, et al. invention is to continually adjust the fan speed so that a substantially constant air flow is maintained in the coating chamber (See Col. 121, lines 20-28). Furthermore, Col. 11 line 64 through Col. 12, line 28 does not discuss the concept of “determining the maximum allowable pressure drop across a filter by adding the initial pressure drop of the filter to the maximum allowable pressure drop.” What is discussed is the concept of determining the total pressure drop by adding fan plenum pressure P_{FP} to the pulse plenum pressure P_{PP} to obtain the total pressure P_T . The calculated total pressure P_T is used to calculate the required fan speed. It is an entirely different process. Reighard, et al is

only interested in keeping a constant airflow rate in the chamber to insure proper powder coating conditions. The Examiner is directed Col 9, lines 21 to 26, Reighard, et al. wherein it states:

"In addition, the control system 22 can include a pulse on demand mode which is essentially a stand alone section of the controller 10 that includes a cartridge sequential pulsing circuit that includes a cartridge sequential pulsing circuit that sequences the opening and closing of the air pulse elements 66A and 66B whenever, a set pressure range is reached across the cartridge filters 58."

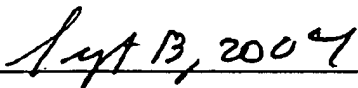
Thus there is no need for a determination of the initial filter pressure drop, because there is never a need for replacement. Thus Reighard, et al. does teaches away from Applicant's invention. It does not disclose Applicants' concept, nor does it make Applicants' invention obvious to one skilled in the art.

The rejections having been overcome, it is believed that the rejection under 35 U.S.C. 103 (a) should now be withdrawn. The Examiner's concurrence is solicited along with a request that the Notice Of Allowance be issued.

Respectfully submitted;



Louis L. Dachs



Date: